

DOCUMENT RESUME

ED 230 732

CE 036 137

TITLE Occupational Information. An Oregon Network. Training Booklet.

INSTITUTION Oregon Occupational Information Coordinating Committee, Salem.

PUB DATE [80]

NOTE 55p.

PUB TYPE Guides - Non-Classroom Use (055)

EDRS PRICE MF01/PC03 Plus Postage.

DESCRIPTORS Adults; Career Planning; *Delivery Systems; Information Dissemination; *Information Networks; *Information Services; Information Systems; Information Utilization; *Occupational Information; *Online Systems; *Reference Services; State Programs

IDENTIFIERS Oregon

ABSTRACT

The Oregon Network is an approach to developing an occupational information system that is an interconnected set of persons, programs, and systems established for the purpose of developing, delivering, and using occupational information. This guide describes that network for potential users. The four sections of the guide define the network, profile the information the network contains, provide samples of information from different delivery systems in the network, and explain how the information is delivered. For each of the delivery systems sampled, a program description, availability, program providers, and a person to contact are listed. Sample printouts from the different delivery systems are contained in the appendix. (KC)

* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *

ED230732

OCCUPATIONAL INFORMATION AN OREGON NETWORK

U.S. DEPARTMENT OF EDUCATION
NATIONAL INSTITUTE OF EDUCATION
EDUCATIONAL RESOURCES INFORMATION
CENTER (ERIC)

This document has been reproduced as
received from the person or organization
originating it.

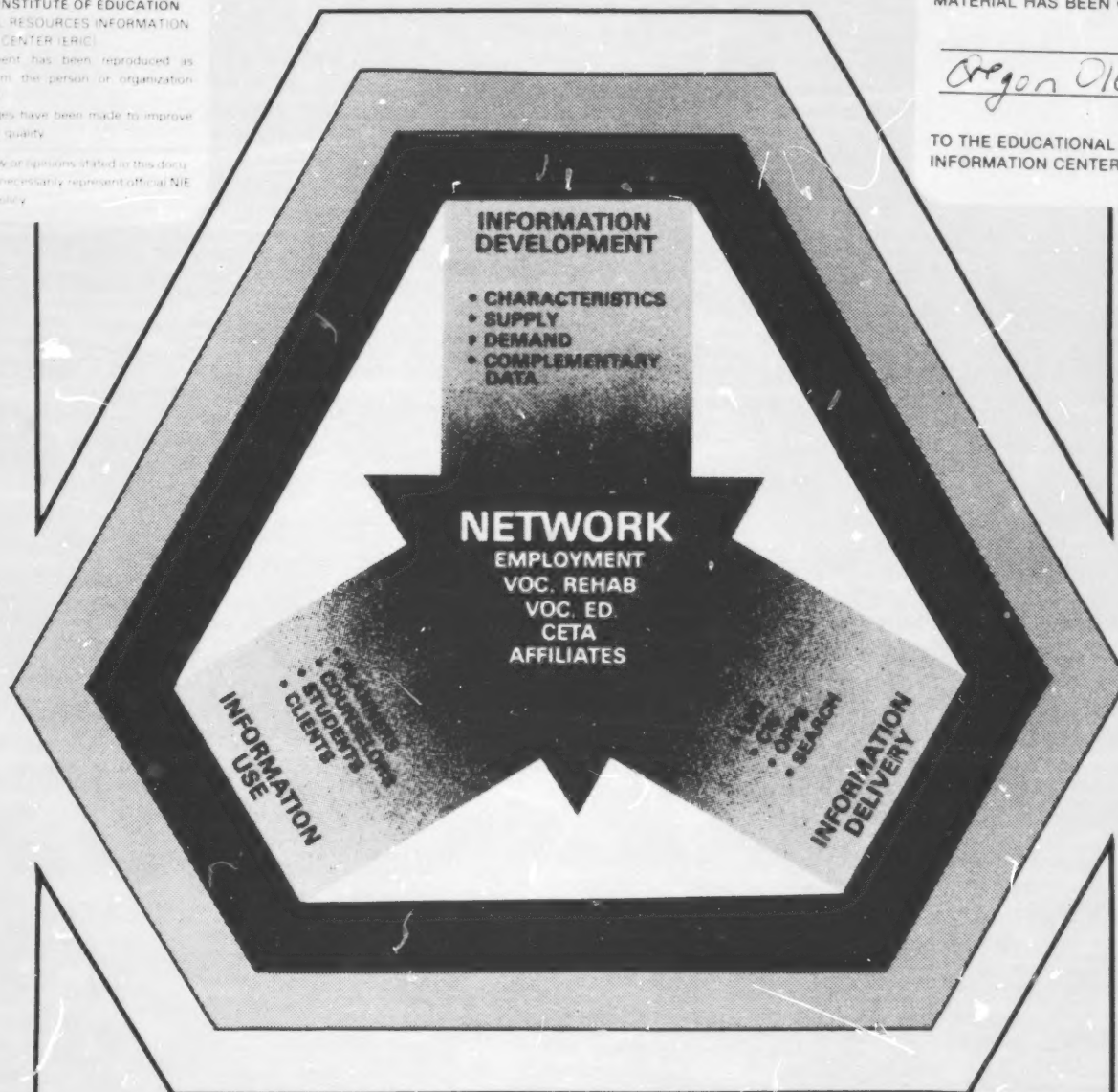
Minor changes have been made to improve
reproduction quality.

• Points of view or opinions stated in this docu-
ment do not necessarily represent official NIE
position or policy.

"PERMISSION TO REPRODUCE THIS
MATERIAL HAS BEEN GRANTED BY

Oregon OICC

TO THE EDUCATIONAL RESOURCES
INFORMATION CENTER (ERIC)."



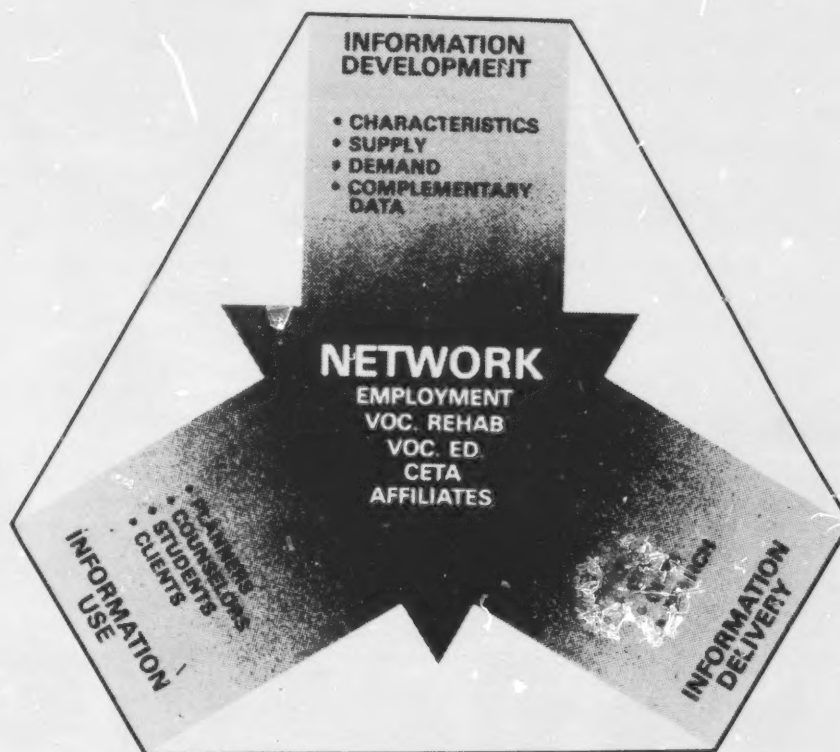
Training Booklet

Oregon Occupational Information Coordinating Committee

STATE OF OREGON

CE036137

THE OREGON OCCUPATIONAL INFORMATION NETWORK

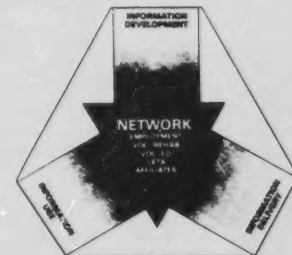


Oregon Occupational Information
Coordinating Committee
875 Union Street N.E.
Salem, Oregon 97311

Phone: (503) 378-8146

CONTENTS OF THIS TRAINING BOOKLET

What is the NETWORK? _____ 3



What Information is in the NETWORK? _____ 7



Samples of Information
From Different Delivery Systems _____ 11

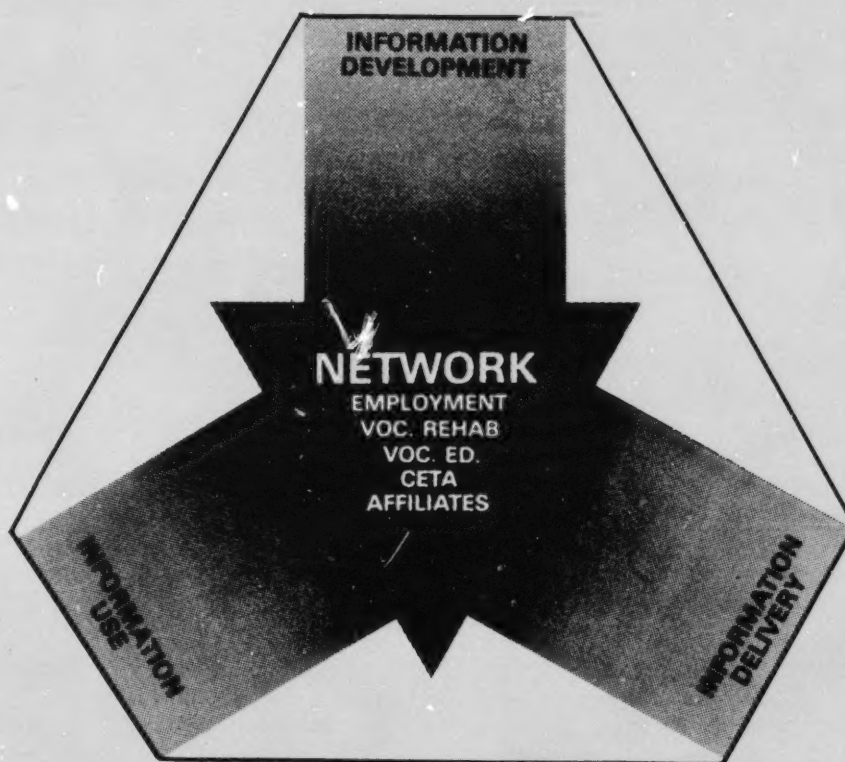


How is the Information Delivered? _____ 17



Appendix _____ 27

WHAT IS THE NETWORK?



THE OCCUPATIONAL INFORMATION NETWORK

The Oregon Scene

A NETWORK of persons, programs and systems has been established for the purpose of developing, delivering and using occupational and educational information. The formalization of this NETWORK was initiated by the Oregon Occupational Information Coordinating Committee (OOICC). The Committee is a consortium of state and local agencies/institutions committed to coordinating the development and delivery of occupational and educational information for individuals and various user groups in Oregon.

On February 12, 1980, the Governor signed an Executive Order recognizing OOICC and charging the OOICC with the responsibility to:

"coordinate and implement an occupational information network which will meet the common needs of the member agencies and others in Oregon." (Executive Order #EO-80-3)

Prior to the Governor's order there had developed in Oregon a number of occupational information production and delivery systems. The Employment Division had developed its Occupational Employment Statistics (OES) program which provided reliable state and local data on current and projected employment. The Department of Education initiated and developed an automated Career Program Planning System (CPPS) which included supply and demand data for program planning. As a result of a cooperative effort involving the Department of Education, Employment Division and others, the Oregon Career Information System (CIS) initiated, at the University of Oregon, the first automated delivery system targeted at students and clients. The Employment Division also had developed a career guidance and decision making system called SEARCH (Systems Exploration and Research for Career Help) used by the Employment Service offices and many schools.

Because of the existence of these data production and delivery systems and the spirit of cooperation that had evolved, the OOICC chose to develop the NETWORK alternative to meet its charge to create an Occupational Information System. The NETWORK approach had the immediate advantage of building upon existing public and private agency and institutional resources. By coordinating and bringing people together to share resources and standardize definitions, data sources, coding systems, etc., the NETWORK could be very productive. This, however, is not the only advantage of the NETWORK approach. Other advantages are:

1. The focus of attention is upon persons (actors) interchanging information rather than upon an abstract monolithic "system". The needs and strategies of individual actors are acknowledged to have unique outcomes.
2. Decision making within network reflect the real world of the political economy. Through public forums such as committee meetings, the economic and political vested interest of participants can be aired.
3. The NETWORK approach has the potential to be client responsive because of its grass roots principles of organization. User groups participate within the network and directly affect the development and delivery of occupational information.

The Oregon Network is therefore an approach to developing an occupational information system that is an interconnected set of persons, programs, and systems established for the purpose of developing, delivering and using occupational information.

The National Scene

During the past several years Congress has been increasingly concerned about the possible lack of relationship between the needs of business and industry for trained personnel and the types of training provided by our institutions. In addition, Congress was concerned about rising youth unemployment and the need for all citizens to have good career information available to assist in individual career decision making.

As a result of these concerns, legislation was passed which established both the National and State Occupational Information Coordinating Committees. It directs these Committees to "develop and implement an Occupational Information System (OIS)." (P.L. 94.482)1/ This OIS is to include the development and delivery of occupational demand, supply, characteristics and complementary information to planners, counselors and individual citizens. (See Appendix for national model.) Considerable discretion, however, is left up to the states as to how to carry out this mandate.

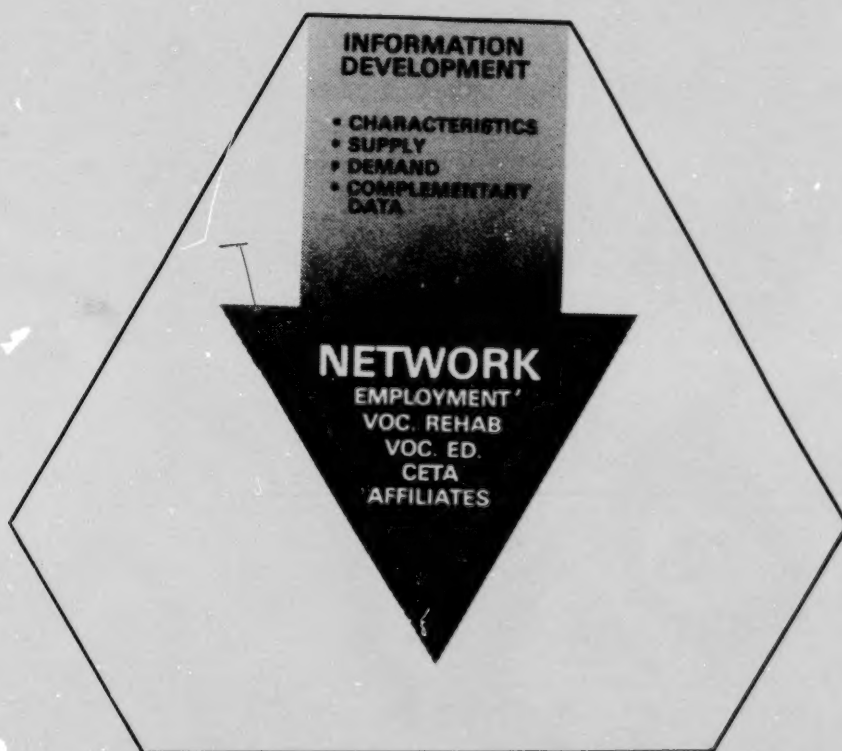
The National Occupational Information Coordinating Committee (NOICC) in its "Framework for Developing an OIS" suggests four operational alternatives. They are: (1) an information clearinghouse, (2) a publication producing OIS, (3) a NETWORK of interrelated programs and systems, and (4) a comprehensive computer-based system (Framework, p. 61).

In 1979, NOICC provided OOICC with a \$34,625 grant to develop NETWORK approach as a national model. This training booklet represents one product of that grant. The booklet will be used in Oregon as well as by NOICC and other states who may be interested in developing this approach to an OIS.

1. Education Amendments of 1976, P.L. 94.482, Title II established the State and National Committees. Subsequent legislation also makes reference to the need for an occupational information system. Youth Employment and Demonstration Project Act (YEDPA) of 1977, P.L. 95.93, Section 12; and the Comprehensive Employment and Training Act (CETA) of 1978, P.L. 95.524, Section 315; Career Education Incentive Act, P.L. 95-207.

NOTES

INFORMATION AVAILABLE FROM THE NETWORK

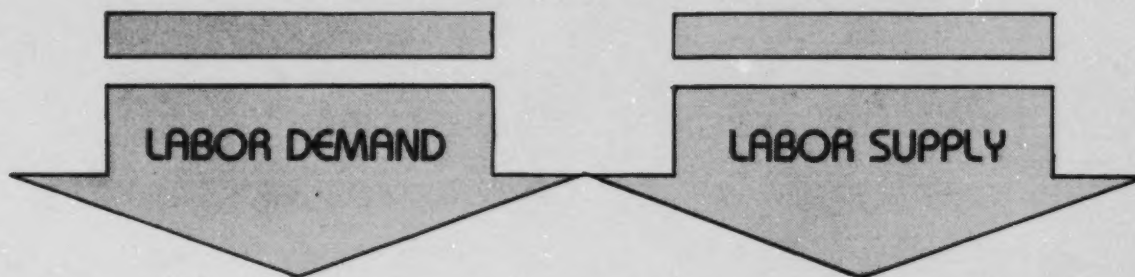


OCCUPATIONAL CHARACTERISTICS

Occupational characteristics information describes an occupation and helps in the comparison between occupations. This information is needed for effective career decision making, planning, counseling and job seeking.

There are eleven core occupational characteristics that most planners, counselors or clients need. These are:

1. **JOB TITLES/DUTIES AND RESPONSIBILITIES:** information that includes the job description and the nature of work.
2. **TRAINING/SKILL/EXPERIENCE REQUIREMENTS:** this would include information relating to acquired abilities necessary for satisfactory performance of a job.
3. **EDUCATIONAL REQUIREMENTS:** information describing required levels of educational attainment for satisfactory job performance, such as high school graduation or GED certificate, associate degree, etc.
4. **CHARACTERISTICS OF WORKERS BY OCCUPATION:** would include essentially demographic information such as age, sex, educational attainment, special considerations such as disability status.
5. **ELIGIBILITY REQUIREMENTS:** minimum standards for entry level and/or legal participation in a job. Would include such things as licensing, registration/certification, union membership and/or educational minimums.
6. **EARNINGS AND BENEFITS:** such information would include the typical methods of payment such as commission, hourly, monthly salary, etc.; regularly extended benefits such as holiday or sick leave, profit sharing, insurance available, etc.
7. **WORK SETTINGS AND CONDITIONS:** information on the physical requirements, environmental settings (inside, outside), travel requirements, etc.
8. **HIRING CHANNELS:** information on organizations and procedures used by employers to help identify, evaluate and hire new employees.
9. **CAREER LADDERS/LINKAGES/TRANSFERS:** information which identifies normal entry occupations and associated career ladders; possible inter- or intra-industry mobility patterns.
10. **INDUSTRIES THAT HIRE SUCH WORKERS:** information that shows in which industries occupations are primarily located.
11. **APTITUDES AND INTERESTS:** information providing aptitude and interest patterns by occupation.



Information concerning the number of job opportunities in a specific occupation. This data includes both the number of jobs presently filled in an occupation and the number of future job openings as a result of expansion and replacement.

Information on the number of workers available and qualified to fill jobs in an occupation. This data includes those currently working, those unemployed, and the projected number of workers expected in the future from such sources as institutional training programs.

Demand/Supply Relationships

Economic development personnel, program planners, counselors and individual citizens have a critical need to know the relationship between labor demand and supply for both institutional planning and individual career decision making. Treated separately, supply and demand data are not sufficient pieces of information for effective planning or counseling. In addition, demand and supply must be analyzed with occupational characteristic information described in the preceding section.

Basically, the relationship between demand and supply is either:

1. Balance: The number of qualified workers available is equal to the number needed.
2. Shortage: The number of qualified workers available is less than the number needed.
3. Surplus: The number of qualified workers available exceeds the number needed.

The Demand/Supply relationship can be viewed both in terms of current and/or long run trends. Some of the many factors affecting the demand/supply relationship are:

LABOR DEMAND

1. total number of jobs
2. industrial growth
3. out-migration
4. number leaving labor force
(death, separation, retirement, etc.)
5. technological change

LABOR SUPPLY

1. number unemployed
2. educational/training output
3. in-migration
4. labor force re-entry
5. occupational mobility

COMPLEMENTARY INFORMATION

Information that is needed to provide depth and understanding for effectual planning, career guidance and/or job seeking. Complementary information is divided into the following three categories.

1. **EDUCATIONAL AND TRAINING PROGRAMS:** information on the location, cost, time required, course content, admission requirements, etc. of education and training programs.
2. **POPULATION INFORMATION:** demographics relating to the entire population in an area; i.e., age, race, sex, etc. Also includes data related to "target groups" or identified sub-populations, such as handicapped or veterans, which require special treatment.
3. **ECONOMIC INFORMATION:** data related to the overall economic trends, both long and short run, which can be expected to influence the number of people employed. Could relate to total employment, employment in a specific industry or particular occupation, or all of the above in a particular geographic area.

NOTES

SAMPLES OF INFORMATION



SAMPLES OF INFORMATION FROM THE NETWORK

OCCUPATIONAL INFORMATION DATA ELEMENTS

EXAMPLE OF MAJOR USE

I. OCCUPATIONAL CHARACTERISTICS

1. Job titles, duties and responsibilities	Used by counselors, planners and clients to assess capability of performing physical and mental activities of job.
2. Training/skill/experience requirements	Used by counselors, planners and clients to find the typical requirements necessary to perform occupational tasks.
3. Educational requirements	Used by counselors and clients to find out the formal education necessary to qualify for employment.
4. Characteristics of Workers by Occupation	Used by administrators and planners for affirmative action or special program development considerations relative to disability, etc.
5. Eligibility requirements	Used by counselors, planners and clients to find out the minimum standards for entry level and/or legal participation in a job.
6. Earnings and benefits	Used by planners, counselors, and clients to compare different occupations.
7. Work settings and conditions	Used by counselors and clients to match the job to workers interest and capacities.
8. Hiring channels	Used by counselors and clients to aid in job search.
9. Career ladders/linkages/transfers	Used by counselors and clients to understand possible career advancement and/or increased responsibilities within an occupation.
10. Industries that hire such workers	Used by planners, counselors, and clients to find industries in which selected occupations are located.
11. Aptitudes and interest patterns by occupation	Used by counselors and clients to indicate the fit between aptitude and interest patterns of an occupation and the job seeker.

S - Sample Provided
X - Available

AVAILABILITY AND SAMPLE

COUNSELING SYSTEMS		PLANNING SYSTEMS		OTHER SOURCES
CIS	SEARCH	LMI	OPPS	
X	Sample P. 39	X	X	OOH
X	X	X	X	Sample: Guide to Apprenticeship P. 42
Sample P. 33	X			Dept. of Education
		Sample: Affirmative Action P. 30		Census
X	Sample P. 40	X		OOH
X	X	Sample: P. 29 Wage Info.		OOH
X	Sample P. 39			OOH
Sample P.32	X			Apprenticeship
X	X			Sample P. 43 OOH
X	X	X	Sample I/O Matrix P. 35	DOT
X	Sample P. 41			DOT

SAMPLES OF INFORMATION FROM THE NETWORK

OCCUPATIONAL INFORMATION DATA ELEMENTS

EXAMPLE OF USE

II. OCCUPATIONAL DEMAND AND SUPPLY

- | | |
|--|---|
| 1. Occupational demand | Used by planners, counselors and clients to look at the current and projected need for an occupation. |
| 2. Current supply | Used by planners to assess the number of workers presently employed and unemployed in an occupation. |
| 3. Training and potential supply | Used by planners and counselors to indicate the number of persons being trained for a given occupation. |
| 4. Occupational demand/supply relationship | Used by planners, counselors and clients to assess whether there is a balance, shortage or surplus in the labor force for a given occupation. |

III. COMPLEMENTARY INFORMATION

- | | |
|----------------------------------|--|
| 1. Educational/training programs | Used by counselors and clients to link training and educational requirements to available sources of training. |
| 2. Population information | Used by planners to gain understanding of population movements that affect the labor force. Also used to identify special groups for affirmative action. |
| 3. Economic information | Used by planners to relate the long and short term economic trends to employment. |

AVAILABILITY AND SAMPLE

COUNSELING SYSTEMS		PLANNING SYSTEMS		OTHER SOURCES
CIS	SEARCH	LMI	OPPS	
X	X	X	Sample P. 36 & P. 37	Occupations in Demand at Job Service Office
X		Sample: Statewide Job Applicants P. 31	X	Employment Trends
			Sample: Printout P. 37	Enrollment Trends in Oregon Education
x		x	Focus P. 38	OOH
Sample P. 33 & 34	X			Oregon Guide to Apprenticeship
		X		Sample: Population Estimates P. 44
		X		Sample: Performance of the Oregon Economy P. 45

NOTES

DATA DELIVERY WITHIN THE NETWORK



Labor Market Information (LMI)

Occupational Program Planning
System (OPPS)

Career Information System (CIS)

SEARCH (Systems Exploration and
Research for Career Help)



LABOR MARKET INFORMATION (LMI)

A. Program Description

The LMI program of the Oregon Employment Division provides a wide range of labor market and related economic information on the following topics:

- labor force
- unemployment
- economic trends
- job openings
- employment
- population
- income
- labor supply

and other social, demographic and job-related information.

LMI products are used by planners, counselors, educators, job seekers, private and public officials and others who need timely data and analysis on labor market/economic trends.

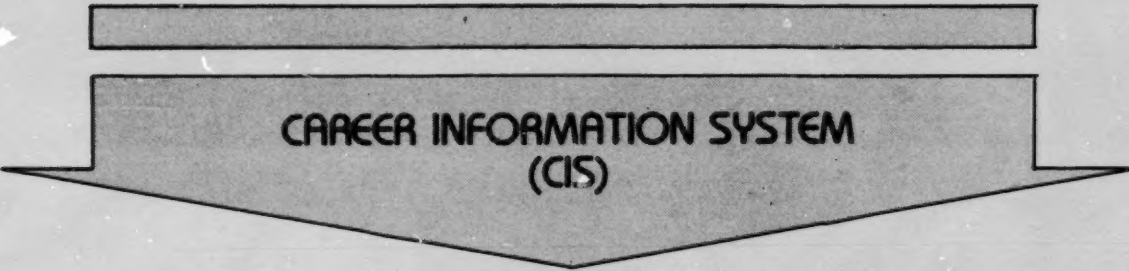
B. Availability and Costs

Most LMI reports are published monthly and distributed to subscribing individuals and organizations. All regular publications and services are available at no cost. Special services, research or projects requiring computer and programming time may require reimbursement.

C. Contacts

LMI is available through a statewide network of state and local area economists. A complete listing of LMI publications and resource persons is contained in the *Oregon Labor Market Information Directory*. This and other LMI publications and services are available from:

Employment Division
Research and Statistics — LMI
875 Union Street N.E.
Salem, Oregon 97311
Phone: 378-3220



CAREER INFORMATION SYSTEM (CIS)

A. Program Description

The goals and objectives of the Career Information System are:

- to foster development and use of career information
- to provide practical means of direct access to current career and labor market information in forms which are meaningful to individual students and clients.
- to promote integration of such information into schools and social agencies in the state of Oregon.

CIS provides up-to-date, localized occupational and educational information. The occupational information represents about 90% of employment throughout the state. The occupational descriptions and labor market information are updated continuously. The educational files consist of programs of study and training leading to a license, degree or certificate in an occupation, plus information about more than 200 public and private schools offering career training. The educational information is updated each fall.

Major Information Topics Provided

OCCUPATIONAL DESCRIPTION AND PREPARATION. The occupational information in CIS covers: job titles; duties and responsibilities; training/skill experience requirements; educational requirements; eligibility requirements; work settings and conditions; hiring channels; career ladders/linkages/transfers; industries that hire such workers; and aptitudes and interest patterns by occupation. The occupational information files in CIS also cover employment outlook, wages, and preparation requirements for each of the 250 occupations in the system.

PROGRAM AND SCHOOL INFORMATION. The educational information in CIS describes programs of study and training in 140 program areas available at two- and four-year colleges and private vocational schools in the state. Apprenticeship information and information about alternative ways of obtaining college credit are also included. A complete listing of information about post secondary schools in Oregon is also compiled in CIS in the following areas for each school: general, academic policies and procedures, admissions, housing, costs, financial aid, and student services.

OTHER INFORMATION AND SERVICES

- Training

Comprehensive training for new users, Fall regional up-date training, and specialized training for CIS secondary school and community college cadre.

- User Handbooks

Each student/client receives a user handbook to assist them in getting started by asking questions concerning his/her interests and abilities as well as explaining how to use the System.

- Implementation Handbook

Each site coordinator receives this manual which outlines in detail the what and how of CIS. Of particular interest to educators is the selection which describes over 50 different learning activities that employ CIS in guidance and instruction.

- Newsletter

User sites periodically receive the CIS "Update" newsletter that highlights important CIS activities as well as notes of interest for vocational and career counselors, teachers and administrators.

- Follow-up Services

CIS maintains a User Service staff that works with schools and agencies to solve problems, plan new uses, and to improve the System's operation.

B. Availability

CIS is available to anyone with a need for occupational and educational information. It is currently used in over 400 sites, serving over 200,000 people each year. CIS users include local school districts, CETA agencies, community colleges, displaced homemakers, education service districts, State Corrections Division, four-year colleges and universities, native American service agencies, Oregon Development of Education, private vocational rehabilitation and counseling firms, agencies and schools serving the disadvantaged and handicapped, private industry, Workers' Compensation Department and the State Vocational Rehabilitation Division.

Cost of Services

CIS operates as a cooperative, controlled and supported by the organizations that use the service. Clients and students are not charged directly for using CIS. However, the institutions utilizing CIS are charged a user fee.

DELIVERY MODES

Computer Delivery

Interactive computer terminals and easy-to-use computer programs enable individuals to search CIS files and obtain personally relevant information.

Needle-sort Kit

The kit includes a deck of sortable cards and a complete set of CIS occupational and educational information books.

Informational Printouts

Subscriptions are available for the Occupational Information, Programs of Study and Training, and School Information printouts.

C. Contact

For more information contact:

User Services
Career Information System
247 Hendricks Hall
University of Oregon
Eugene, OR 97403
Telephone: 686-3872

OCCUPATIONAL PROGRAM PLANNING SYSTEM (OPPS)

A. Description

OPPS is an information system specifically designed for occupational program planners and economic/industrial planners who required basic information on occupational supply and demand in specific occupations.

OPPS contains:

- Occupational demand information for the state and selected local areas.
- Occupational supply information from a variety of sources including:

- high schools
- community colleges
- universities
- apprenticeship programs
- private schools
- Vocational Rehabilitation Division
- CETA

Other sources are being added as they are obtained, including: Corrections, Employment Service Job Applicant data, etc.

Three different occupational groupings are used to organize the information. They are:

- 19 broad occupational groups.
- approximately 225 specific training areas or United States Office of Education sub-groups.
- 1,500 individual Occupational Employment Statistics codes.

B. Availability

The following services are currently available:

- A computerized data bank of occupational supply/demand data.
- User service and training personnel.

Additional services will be available in 1981.

- Annual supply/demand publications
- Training program projection model

Cost:

Any individual or group interested in obtaining occupational supply/demand data is eligible. Currently, there is no direct cost to individual or institutional users, as the system is funded at the state level.

The Oregon Occupational Information Coordinating Committee provides general policy direction for the system. Statutory members of this committee are:

- Oregon Department of Education
- Oregon Employment Division
- Vocational Rehabilitation Division
- CETA Programs

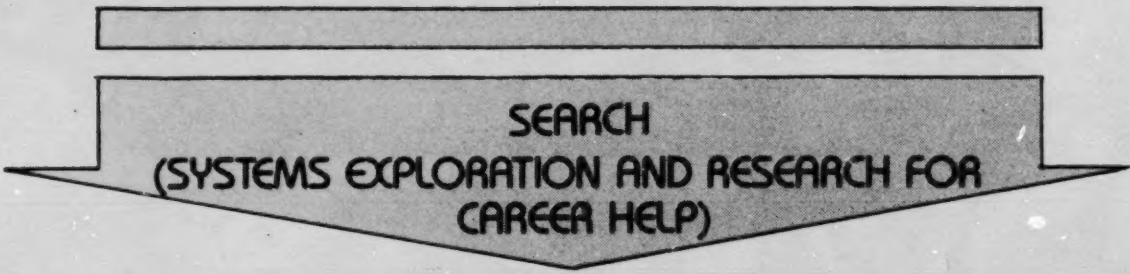
The Oregon Employment Division serves as the technical operator of the system.

Geographic Coverage:

Occupational demand data is provided for the state and for Administrative Planning Districts 2, 3, 5, and 8. Information for Districts 1, 4, 7 and 9-14 will be added soon. Supply data is provided at the state level only.

C. Contact

David Allen
OPPS Coordinator
Employment Division
875 Union Street, N.E.
Salem, Oregon 97311
Telephone: 378-6400



SEARCH (SYSTEMS EXPLORATION AND RESEARCH FOR CAREER HELP)

A. Program Description

SEARCH is a counseling-career guidance system that uses a computer to bring together the results of a client/student's aptitude and interest measurements. It presents the results in printout form for meaningful self-analysis by the client. In selecting occupations to explore further, client/student decision-making is emphasized. Occupational, labor market, training and job-finding information for Oregon is brought in at various points in the exploration and decision-making process, using a variety of guides and publications. SEARCH is usually given on a group basis, but may be used in individual counseling as well.

MAJOR INFORMATION TOPICS

The major topics on which SEARCH provides information are:

- Occupational titles, duties and responsibilities
- Training/skill/experience requirements
- Educational requirements
- Eligibility requirements
- Work settings and conditions
- Aptitudes and interests

SEARCH also includes information on these topics:

- Earnings and benefits
- Career ladders/linkages/transfers
- Major industries
- Current supply
- Occupational demand
- Education and training programs

B. Availability

Clients/Students

SEARCH is available to applicants in most local offices of the State of Oregon Employment Division and to clients of programs available through CETA prime sponsors. It is also available through special programs which provide physical, mental and social rehabilitation and/or which serve special client populations such as unemployed youth and women entering the labor market. Clients must meet the eligibility requirements of the particular program involved.

SEARCH is offered as part of the career education program of many Oregon schools in grades 9-12. It is also offered to students requesting vocational counseling by some colleges and universities.

COUNSELRS/PROGRAM PROVIDERS

The system is available to any organization employing vocational or career-education counselors and that is involved in career guidance and counseling. A three-day training session must be completed in the use of SEARCH, including aptitude testing, as part of its implementation.

Cost of Services:

Clients/students are not charged directly for using the SEARCH system.

The institutional cost of SEARCH is modest as systems go. Costs for a typical training and placement program would be as follows: Ten clients per week for one year is approximately \$500. This includes a one-time initial cost of \$235, with the cost per year thereafter being approximately \$260 (plus inflation).

For a school providing SEARCH to 200 students per year, the cost would be approximately \$330, including a one time start-up cost of \$229. The cost thereafter would be about \$100 per year.

The cost of the counselor's time, test supplies, and printout processing is additional. The present cost for printout processing in Oregon is \$1.10 per client/student including postage. Processing time for organizations located within the state averages one week.

C. Contact

For more information regarding SEARCH, contact:

Paul Kerr, Supervisor
Testing and Counseling Unit
State of Oregon Employment Division
875 Union Street N.E.
Salem, Oregon 97311
Telephone: 378-8290

DIRECTORY OF OTHER SOURCES

For a comprehensive listing of data sources within the Network, see the *Directory of Occupational and Educational Information Sources*. The *Directory* provides a description of and information on how to obtain over 100 sources of occupational and educational information.

Contact: Dave Fretwell
Executive Secretary
Oregon Occupational Information
Coordinating Committee
875 Union Street N.E.
Salem, Oregon 97311
Phone: 378-8146

NOTES

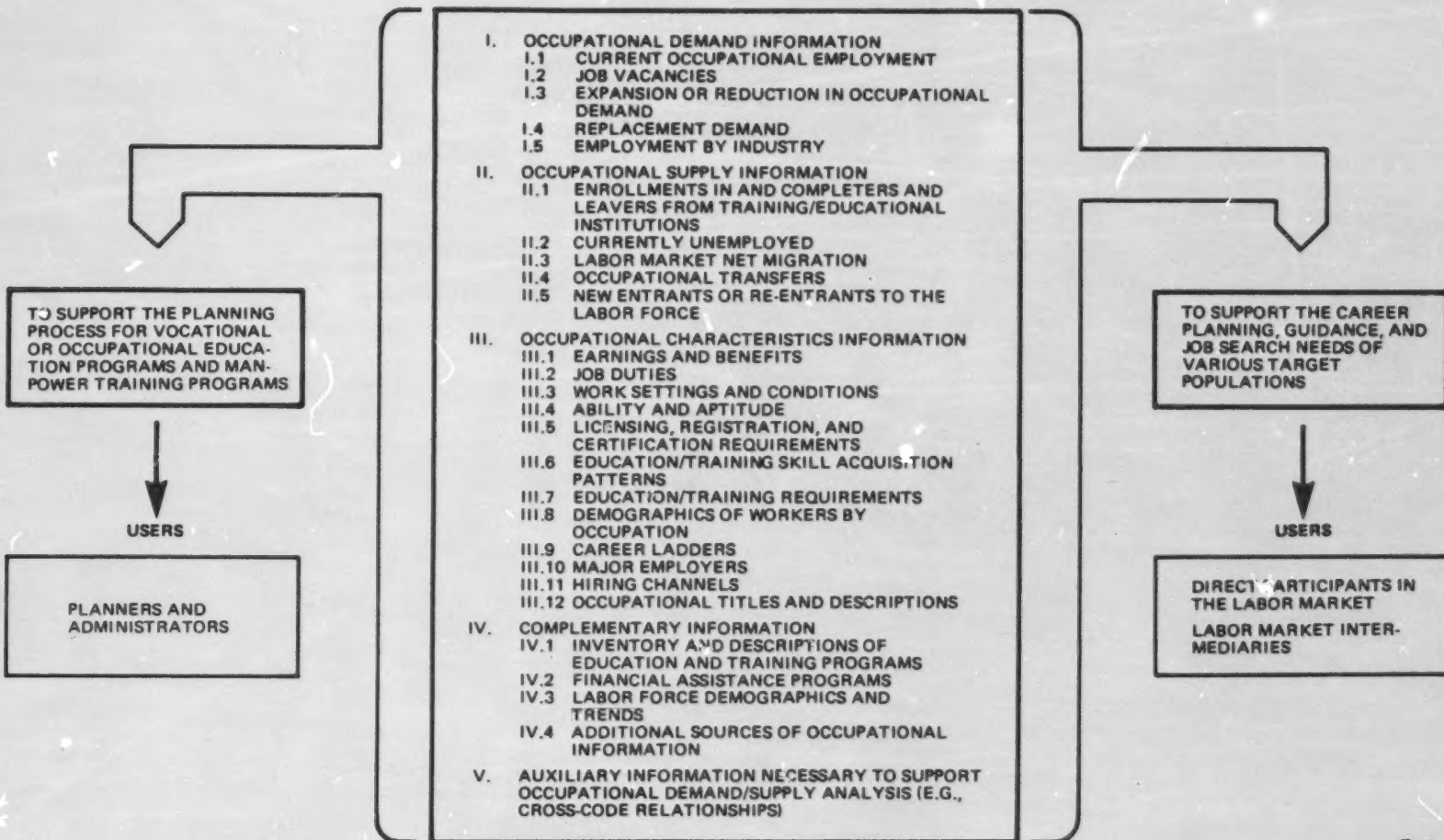
APPENDIX

**INFORMATION FROM
DIFFERENT DELIVERY SYSTEMS**

EXHIBIT 2-3

OIS INFORMATION BASE AND THE TWO MAJOR USES OF OCCUPATIONAL INFORMATION

OCCUPATIONAL INFORMATION BASE



National Occupational Information Coordinating Committee
Office of Education Employment and Training Administration
Bureau of Labor Statistics National Center for Education Statistics

<u>Occupational Title</u>	<u>Estimated 1979 Employment</u>	<u>Wage Range</u>
<u>CLERICAL (Cont.)</u>		
File Clerk	3,060	\$542-692/mo.
Library Assistant	1,090	\$450-800/mo.
Postal Mail Carrier	4,660	\$7.74-9.07/hr.
Payroll/Timekeeping Clerk	2,300	\$730-1,127/mo.
Receptionist/Switchboard Operator	8,460	\$656-970/mo.
Shipping & Receiving Clerk	3,360	\$602-1,594/mo.
Stock Clerk	5,890	\$600-774/mo.
Teacher's Aide	2,000	\$450-700/mo.
General Clerk		\$611-925/mo.
<u>CRAFT WORKER</u>		
Carpenter		10.00-12.00/hr.
Cement Mason		10.00-10.55/hr.
Electrician		10.00-14.55/hr.
Painter		9.00-9.92/hr.
Plumber		14.32/hr.
Roofer		12.00/hr.
Shoemaker		7.35/hr.
Solderer		10.00/hr.
Welder		7.00/hr.
Welder, Machine		10.51/hr.
Welder, Pipe		12.00-12.00/hr.
Welder, Ship		\$8.00-9.00/hr.
Welder, Structural		\$7.30-8.20/hr.
Welder, Welding	10,150	\$4.00-9.90/hr.
<u>OPERATIVES</u>		
Machine Tool Operator	1,460	\$7.25/hr. (avg.)
Production Worker	7,670	\$2.90-6.22/hr.
Shipping Packer	1,910	\$2.90-6.22/hr.
Assembler	14,580	\$2.70-8.00/hr.
Surveyor Helper	1,000	\$3.50-6.00/hr.
Clothing Ironers & Pressers	1,000	\$2.90-4.50/hr.
Dressmaker/Sewer	1,650	\$2.90-5.00/hr.
Drywall Installers	1,100	\$4.00-10.65/hr.
Gas Station Attendant	6,920	\$2.30-5.00/hr.
Meat Cutter/Butcher (Excluding Mfg.)	3,280	\$4.22-8.74/hr.
Sawyer	4,230	\$5.82-11.47/hr.
Cannery Worker	3,830	\$2.90+/hr.
Veneer Repairer Machine Operator	1,330	\$6.50+/hr.
Bus Driver	5,620	\$4.00-8.00/hr.
Delivery Driver	7,760	Varies
Industrial Truck Operator	5,730	\$4.50-9.32/hr.
Truck Driver, Heavy	8,870	\$7.02-10.10/hr.
Truck Driver, Light	3,490	\$3.75-8.58/hr.
Tractor-Trailer Truck Driver	8,240	\$6.63-10.08/hr.

OREGON STATEWIDE

TABLE 3

OCCUPATIONS OF EMPLOYED PERSONS BY SEX AND MINORITY STATUS - 1979

	TOTAL	* F	* M	** F	** M	WHITE F	WHITE M	** F	** M	BLACK F	BLACK M	** F	** M	OTHR RACES F	OTHR RACES M	** F	** M	SP AMER F	SP AMER M	** F	** M	TOT MIN F	TOT MIN M
TOTAL ALL OCCUPATIONS	1113099	41.0	59.0	39.9	57.7	0.5	0.6	0.6	0.7	0.5	0.9	1.6	2.2										
PROFESSIONAL TECHNICAL & KINDRED	162595	45.4	54.6	44.4	53.3	0.4	0.4	0.6	0.9	0.4	0.7	1.4	2.0										
MEDICAL AND HEALTH WORKERS	27373	64.1	35.9	62.6	34.8	0.5	0.2	1.0	0.9	0.8	0.4	2.3	1.5										
TEACHERS	42218	68.9	31.1	67.7	30.6	0.7	0.2	0.5	0.2	0.6	0.3	1.9	0.8										
TECHNICIANS EXCEPT HEALTH	10422	15.8	84.2	15.3	82.3	0.1	0.4	0.4	1.5	0.1	1.4	0.6	3.3										
OTHER PROFESSIONAL WORKERS	82582	30.9	69.1	30.2	67.4	0.3	0.6	0.5	1.1	0.3	0.9	1.0	2.6										
MANAGERS AND ADMIN. EXCEPT FARM	104053	20.3	79	20.0	78.7	0.1	0.4	0.2	0.7	0.2	0.7	0.4	1.7										
SALES WORKERS	84107	43.5				0.1	0.2	0.3	0.2	0.4	0.5	0.9	0.9										
RETAIL TRADE	47425	63.2				0.1	0.1	0.4	0.2	0.7	0.3	1.2	0.6										
OTHER THAN RETAIL TRADE	36683	18.1				1	0.3	0.2	0.3	0.2	0.7	0.4	1.2										
CLERICAL WORKERS	197150	80						0.9	0.3	0.9	0.3	2.6	0.9										
BOOKKEEPERS	26657	9						0.6	0.1	0.9	0.1	1.7	0.3										
SECRETARIES, STENOS, TYPISTS	53549								0.0	1.1	0.0	2.9	0.0										
OTHER CLERICAL WORKERS	116944								0.5	0.7	0.5	2.7	1.4										
CRAFTSMEN, FOREMEN AND KINDRED	138735																						
OPERATIVES EXEC TRANSPORT WORKER	1167																						
DURABLE GOODS MANUFACTURING	57																						
NONDURABLE GOODS MFG.	22474																						
NONMANUFACTURING INDUSTRIES	36180																						
TRANSPORT EQUIPMENT OPERATIVES	46144	7.2	92.8																				
LABORERS, EXCEPT FARM	64817	8.5	91.5	8.2																			
SERVICE WORKERS	156565	67.5	32.5	64.7	30.5																		
PRIVATE HOUSEHOLD WORKERS	13425	97.4	2.6	92.4	2.5	4.1																	
CLEANING SERVICE WORKERS	30041	37.4	62.6	35.2	59.2	1.5																	
FOOD SERVICE WORKERS	54039	77.5	22.5	75.4	20.1	0.6	0.6	0.5	1.7	1.1	0.5	3.2	2.9										
HEALTH SERVICE WORKERS	21672	92.0	8.0	88.2	7.6	2.5	0.3	0.3	0.1	1.6	0.2	5.4	0.6										
PERSONAL SERVICE WORKERS	16644	71.6	28.4	69.0	27.1	1.5	0.9	1.1	0.4	1.3	0.5	4.0	1.8										
PROTECTIVE SERVICE WORKERS	10607	6.5	93.5	6.2	92.3	0.1	0.4	0.2	0.8	0.0	1.0	0.3	2.2										
OTHER SERVICE WORKERS	10137	67.6	32.4	62.9	28.6	2.7	2.4	2.0	1.5	0.9	0.3	5.6	4.2										
AGRICULTURAL WORKERS	42709	17.3	82.7	16.6	80.5	0.1	0.3	0.6	1.8	0.6	2.1	1.3	4.3										

NOTES: "TOT MIN" IS SUM OF SPANISH AMERICAN AND ALL RACES EXCEPT WHITE. SOME DUPLICATION IS POSSIBLE SINCE SPANISH AMERICAN INCLUDES NONWHITE RACES IN ADDITION TO WHITE.

SUM OF INDIVIDUAL ITEMS MAY NOT EQUAL TOTAL BECAUSE OF ROUNDING.

06/30/80

STATEWIDE JOB APPLICANTS-CONTINUED

OCCUPATION CODES	TOTAL	FEMALE	ETHNIC GROUP					AGE		YEARS OF SCHOOLING			ECONOMICALLY DIS	HANDICAPPED	VETERAN
			WHITE NOT HISP	BLACK NOT HISP	HISPANIC	AMERICAN INDIAN	ASIAN	0-21	45+	0-11	12-15	16+			
MECHANIC AUTOMOTIVE.....	3,006	40	2,155	32	61	27	31	241	321	933	2,037	36	934	330	1,364
DIESEL MECHANIC.....	434	4	417	5	6	2	4	21	72	94	333	7	102	55	275
MOTORCYCLE MECHANIC.....	13	-	13	-	-	-	-	-	2	4	9	-	2	2	8
AUTOMOBILE REPAIR SERVICE EST.....	60	5	-	-	-	-	1	4	11	17	40	3	15	10	28
FARM EQUIPMENT MECHANIC.....	83	-	-	-	2	-	-	4	18	24	60	2	21	4	38
GAS AND ELEC APPLIANCE REPAIR.....	205	-	1	4	2	4	4	10	33	47	151	7	59	27	97
SIGN ERECTOR.....	11	-	-	-	-	-	-	-	2	1	9	1	2	1	2
DRAFTING MACHINE.....	1	-	1	-	-	-	-	2	3	2	12	-	3	-	6
HOUSEHOLD APPLIANCE INSTALLER.....	1	-	-	-	-	1	1	2	1	4	15	1	4	-	5
OFFICE MACH. SERV. CASH REG.....	1	-	-	-	-	1	2	2	11	7	64	1	14	11	42
ELECTRONIC MECHANIC.....	1	-	-	-	-	1	12	9	34	21	410	13	101	42	345
RADIO MECHANIC.....	1	-	-	-	-	-	-	2	5	5	42	1	13	5	39
TV SERVICER/REPAIR/TAPE REC. CAR REPAIRER.....	1	-	-	-	-	-	1	6	20	17	119	3	44	32	70
PRINTING TR. CRAFT WORK.....	1	-	-	-	-	-	-	10	5	13	29	1	21	2	14
BOOKBINDER, HAND.....	1	-	-	-	-	-	-	13	61	74	421	32	143	45	154
BOOKBINDER, MACHINE.....	1	-	-	-	-	-	-	1	10	6	15	2	4	2	2
STATIONERY WORKER, ASSEMBLY.....	1	-	-	-	-	-	-	-	5	24	3	11	2	7	7
HAND COMPOSITOR.....	1	-	-	-	-	-	-	9	15	32	2	19	3	3	3
STRIPPER.....	1	-	-	-	-	-	-	10	3	20	1	4	1	4	4
.....	11	-	-	-	-	-	-	1	1	12	5	2	-	-	2

SEE FOOTNOTES AT END OF TABLE.

LMI SAMPLE
"Statewide Job Applicants"

Sample Printouts from the Career Information System

Occupational Description

2656 OPTICIANS

OPTICIANS PREPARE CORRECTIVE LENSES AND
TO PRESCRIPTIONS OF OPHTHALMOLOGISTS
DISPENSING OPTICIANS FIT
TECHNICIANS FOR
CUSTOM

FR
JE
ANI
MAC

WELL
HEAV
IN T.
BECAL
HANDI
CAN P
TURIN
CIANS
PHYSIC
WHOLE,

CIS SAMPLE

"Hiring Changes"

... OF DISPENSING OPTI-
... OPTICAL DEPARTMENTS, OR WITH
... MOST OPTICAL TECHNICIANS WORK IN
... LABORATORIES.

---HIRING PRACTICES: COMPLETION OF A TRAINING PROGRAM IS
USUALLY REQUIRED. FOR TRAINEE POSITIONS, GOOD USE OF HANDS
AND FINGERS, AND MECHANICAL ABILITY ARE IMPORTANT. CERTIFICA-
TION: AVAILABLE TO DISPENSING OPTICIANS WHO ARE GRADUATES OF AN
APPROVED SCHOOL OF OPTICIANRY OR HAVE 5 YEARS EXPERIENCE AND PASS
A WRITTEN EXAM. TRAINING: SKILLS ARE ACQUIRED THROUGH FORMAL
APPRENTICESHIP, INFORMALLY AS AN OPTICIAN'S HELPER OR THROUGH
EITHER A 1-YEAR OR 2-YEAR PROGRAM AT PORTLAND CC. SEE PREP 2656.

---CURRENT EMPLOYMENT: AROUND 650 ARE EMPLOYED IN THIS SMALL OC-
CUPATION IN OREGON. IN ADDITION, THERE ARE OTHERS WHO ARE SELF-
EMPLOYED. THIS IS A SMALL OCCUPATION WITH MOST OPTICIANS WORKING
IN POPULATION CENTERS.

---WAGES: ENTRY RATES FOR JOURNEYMEN ARE ABOUT \$1,000-1,200/
MONTH. AVERAGE MAXIMUM EARNINGS ARE ABOUT \$1,400-1,500/MO. FOR
DISPENSING OPTICIANS; ABOUT \$1,300 FOR MANUFACTURING OPTICIANS.

---OUTLOOK: SLIGHT SHORTAGE OF JOURNEYMEN. OUTLOOK DEPENDS ON
THE NUMBER OF CURRENT HEALTH AND EYE CARE PROGRAMS AND THE
REPLACEMENT OF THOSE WHO LEAVE THE OCCUPATION. EMPLOYMENT FOR
OPTICIANS IS EXPECTED TO GROW FASTER THAN THE AVERAGE FOR ALL
OCCUPATIONS IN OREGON. THIS GROWTH IS A RESULT OF AN INCREASE IN
DEMAND FOR PRESCRIPTION LENSES CAUSED BY POPULATION GROWTH,
RISING LITERACY AND EDUCATIONAL LEVELS AND AN EXPANDING NUMBER
OF OLDER PERSONS (A GROUP MOST LIKELY TO NEED GLASSES). CUR-
RENTLY, DEMAND IS FAIRLY STRONG FOR FORMALLY TRAINED &
EXPERIENCED APPLICANTS SKILLED IN GRINDING, SURFACING, FITTING
AND EDGING GLASSES AS PRESCRIBED. PROSPECTS ARE GOOD FOR QUAL-
IFIED WOMEN, MINORITIES AND FOR THE HANDICAPPED WITH GOOD EYE-
SIGHT & MANUAL DEXTERITY.

Preparation

---SKILLS: OPERATION OF OPTICAL EQUIPMENT & USE OF TOOLS;
KNOWLEDGE OF OPTICAL MATERIALS; UNDERSTANDING OF THE ANATOMY
OF THE EYE AS WELL AS NORMAL AND ABNORMAL VISION, AND PERCEPTION;
KNOWLEDGE OF FEDERAL, STATE AND LOCAL LAWS GOVERNING THE OP-
THALMIC FIELD.

---CERTIFICATION: OPTICIANS WHO CHOOSE TO BE CERTIFIED BY THE
NATIONAL ACADEMY OF OPTICIANRY MUST:

- 1) BE A HIGH SCHOOL GRADUATE;
- 2) BE A GRADUATE OF AN ACCREDITED SCHOOL OF OPTICIANRY, OR
SHOW EVIDENCE OF 5 YEARS OF EXPERIENCE AS A DISPENSING
OPTICIAN, OR SHOW EVIDENCE OF LICENSURE BY EXAM IN A
STATE OF THE UNITED STATES;
- 3) PASS THE EXAM WITH A MINIMUM SCORE OF 70;
- 4) PAY \$25 FEE FOR EACH EXAM.

---PREPARATION: MOST EMPLOYERS PREFER ENTRY-LEVEL OPTICIANS
TO HAVE A HIGH SCHOOL EDUCATION AND TRAINING
THROUGH EMPLOYMENT AS AN OPTICIAN'S HELPER OR THROUGH A 4-YEAR
APPRENTICESHIP. MANY EMPLOYERS SELECT THEIR APPRENTICE APPLI-
CANTS FROM PRODUCTION WORKERS. 1-YEAR AND 2-YEAR PROGRAMS IN
OPTICAL TECHNOLOGY ARE OFFERED AT PORTLAND CC. TRAINING AS
AN OPTICIAN IN COMMUNITY COLLEGE OR APPRENTICESHIP
CLUDES INSTRUCTION IN OPTICAL MATH, OPTICAL PHY-
OF PRECISION MEASURING INSTRUMENTS. SOME OF
IN CONTACT LENSES. THEY LEARN HOW TO
BRIGATE CONTACT LENSES TO MATCH THE
WELL AS TO PROPERLY FIT THE EYE
TO MODIFY, FIT, AND ADJUST
OF A LICENSED EYE DOCTOR

RELATED EDUCAT
APPRENTICESHIP

---TIPS:
MECHAN-
EM

CIS SAMPLE

"Educational Requirements"

LIC.
MORE
BIOLG
QUIREL
ADMITT.
EXPECTE
SCIENCES

OMETRY
\$115 FOR
COLLEGE
NOLOGY ARE RE-
OMETRY PROGRAM. ONCE
GRAM, STUDENTS ARE
CE (USUALLY IN HEALTH

THE
PHYSIOLOGY
TWO YEARS
PRACTICE.
THE DOCTOR OF OPTOMETRY DEGREE AND MAY THEN TAKE THE LICENSING
EXAM TO BECOME A PRACTICING OPTOMETRIST (SEE DESC 8134).

ALL 13 PROFESSIONAL OPTOMETRY PROGRAMS IN THE U.S. REQUIRE
APPLICANTS TO TAKE THE OPTOMETRY COLLEGE ADMISSIONS TEST (OCAT).
THE TESTS ARE GIVEN IN NOV., JAN., AND MARCH. NOV. AND JAN. TEST
DATES ARE RECOMMENDED (GET TEST APPLICATION FORMS FROM A SCHOOL
OF OPTOMETRY). OREGON RESIDENTS ARE ELIGIBLE TO BE CERTIFIED BY
THE WICHE PROGRAM FOR OPTOMETRY PROGRAMS OFFERED AT SCHOOLS IN
OTHER WESTERN STATES. WICHE STUDENTS RECEIVE REDUCED TUITION
RATES AND PREFERENTIAL ADMISSIONS CONSIDERATION AT PARTICIPATING
INSTITUTIONS. MUST APPLY FOR CERTIFICATION BEFORE OCT. 15 OF THE
YEAR BEFORE ADMISSION TO WESTERN INTERSTATE COMMISSION FOR HIGHER
EDUCATION (WICHE) STUDENT EXCHANGE PROGRAM, P.O. BOX 3175,
EUGENE, OR 97403. PHONE (503) 686-4153.

ONE COMMUNITY COLLEGE OFFERS 1 & 2-YEAR PROGRAMS IN OPTICAL TECHNOLOGY. THESE PROGRAMS INTEND TO PREPARE TECHNICIANS WHO MAKE EYE GLASSES (OPTICIANS). TRAINING INCLUDES INTERPRETING PRESCRIPTIONS, OPERATING MACHINES USED IN MAKING EYEGLASSES & SURFACING & FINISHING LENSES (SEE DESC 2644).

FOR MORE GENERAL INFORMATION ON SCHOOLS OF OPTOMETRY, WRITE FOR THE BOOKLET 'INFORMATION FOR APPLICANTS TO SCHOOLS & COLLEGES OF OPTOMETRY,' FALL 1978. AVAILABLE FROM THE AMERICAN OPTOMETRIC ASSN, 243 N. LINDBURGH BLVD., ST. LOUIS, MO 63141. THE ASSN ALSO PROVIDES INFO ON PARAPROFESSIONAL CAREERS IN OPTOMETRY.

RELATED PROGRAMS: 387 HEALTH - OTHER TECHNOLOGIES; 363 MEDICINE; 631 APPRENTICESHIP PROGRAMS.

2 PORTLAND AREA SCHOOLS

- - - - 21711 PACIFIC UNIVERSITY - FOREST GROVE:
 'OPTOMETRY'; DOCTORAL DEGREE PROGRAM. COMPETITION FOR POSITIONS IN THE PROGRAM IS KEEN; GOOD GRADES IN PRE-OPTOMETRY REQUIREMENTS HELP IN SECURING AN ADMISSION POSITION. ADMISSION CRITERIA ALSO INCLUDE OPTOMETRY COLLEGE ADMISSION TEST SCORES, LETTERS OF RECOMMENDATION, AND NON-ACADEMIC ACHIEVEMENTS. APPLICANTS MUST HAVE COMPLETED AT LEAST 2 YEARS COLLEGE WORK; APPLY BY JAN. 1 FOR FOLLOWING FALL. TAKE OCAT EXAM IN NOV. OR JAN. FOR FOLLOWING FALL. PREOPTOMETRY COURSEWORK MUST INCLUDE 66 SEMESTER UNITS: 18 QUARTER HRS CHEMISTRY (INCLUDING FULL SEQUENCE ORGANIC CHEMISTRY AND LAB); 9 HRS PHYSICS; 4-5 HRS PSYCHOLOGY; 4-5 HRS STATISTICS; 6 HRS HUMAN ANATOMY. ACCEPTANCE TO PROFESSIONAL PROGRAM DEPENDS ON PERFORMANCE DURING 1ST YEAR. PRE-REQUISITES: INTERVIEW & MATH, ENGLISH & SPATIAL RELATION PLACEMENT TESTS ARE REQUIRED. COMPETITION FOR 25 OPENINGS IN FALL '79 CLASS KEEN. APPLICATIONS PREFERRED BEFORE MID-JUNE, 1980. OUT-OF-STATE STUDENTS PAY REGULAR IN-STATE TUITION IF ACCEPTED INTO PROGRAM. FOR MORE INFORMATION CALL 283-2541, EXT. 57.

CIS SAMPLE
 "Educational/Training Programs"

A T. GR. COM. RICA. TICS TO TA. DISPEN. SALES, INTO 2ND YEAR. PRE-REQUISITES: INTERVIEW & MATH, ENGLISH & SPATIAL RELATION PLACEMENT TESTS ARE REQUIRED. COMPETITION FOR 25 OPENINGS IN FALL '79 CLASS KEEN. APPLICATIONS PREFERRED BEFORE MID-JUNE, 1980. OUT-OF-STATE STUDENTS PAY REGULAR IN-STATE TUITION IF ACCEPTED INTO PROGRAM. FOR MORE INFORMATION CALL 283-2541, EXT. 57.

369 OPTOMETRY TRANSFER PROGRAMS:
 MOST 2- & 4-YEAR SCHOOLS IN THE STATE OFFER COURSEWORK FOR PRE-OPTOMETRY PROGRAM. SEE REQUIRED COURSEWORK LISTED ABOVE FOR PACIFIC'S PROFESSIONAL PROGRAM.

- - - - 21219 OREGON STATE UNIVERSITY - CORVALLIS:
 OFFERS 3-YR. PRE-OPTOMETRY PROGRAM. BACHELOR'S DEGREE IN GENERAL SCIENCE FROM OSU AFTER FIRST YEAR IN PROFESSIONAL OPTOMETRY PROGRAM.

HARNEY AND MALHEUR COUNTIES -- DISTRICT 14
AGGREGATED INDUSTRY/OCCUPATION MATRIX -- 1977

<u>Industry Group</u>	<u>Occupational Group</u>								<u>TOTAL</u>
	<u>Professional and Technical</u>	<u>Managers and Officers</u>	<u>Sales Workers</u>	<u>Clerical</u>	<u>Craftworkers and Supervisors</u>	<u>Operatives</u>	<u>Service Workers</u>	<u>Laborers</u>	
Total	1,505	845	780	1,715	1,005	2,050	1,795	930	10,625
Mining	0	0	0		0	0	0	0	10
Construction	0	60				20	0	45	365
Manufacturing	100	80				305	75	510	2,580
Transp., Comm., & Utilities	15						0	40	440
Trade	40							235	3,190
Finance, Ins., & Real Estate	0	65						0	300
Services	385	110	15				570	20	1,540
Government	965	180	0	490			320	75	2,200

OPPS SAMPLE
"Sample Industry/Occupational Matrix"

NOTE: Detail counts may not sum to totals due to rounding.

KEY: LINE 11 A.A.A.A
 LINE 2,3,4,5,7,8,9
 LINE 10 UNIV,PRIV,APPR,CORP,ESAP,CCOL,DVP

		**** DEMAND **** LOCAL ADMINISTRATIVE DISTRICTS													
USOE CODE	OES JOB TITLE	DIST 2 CURR	E+R	DIST 3 CURR	E+R	DIST 4 CURR	E+R	DIST 5 CURR	E+R	DIST 7 CURR	E+R	DIST 8 CURR	E+R	DIST 9 CURR	E+R
*****	TOTALS USOE 17010200 *****	200	72	50	30	40	24	40	18	0	0	40	24	70	24
**** 08	17030200 MECHANIC														
17030200	CAR REPAIRER	70	12	0			0	30	6	0	0	0	0	30	12
17030200	AUTOMOBILE REPAIR SERVI	190	54				6	30	12	0	0	30	12	50	12
17030200	MECHANIC AUTOMOTIVE	4890	1428				198	1140	318	380	84	670	258	1280	324
*****	TOTALS USOE 17030200 *****														
		5150						1230	336	380	84	700	270	1360	348
**** 08	17030300 SPECIALIZED MEC														
17030300	LAUNDRY MACHINE MECHANIC							10	0	0	0	10	0	0	0
17030300	AUTO SEAT COVERS							6	0	0	0	19	6	10	0
17030300	LOCKSMITH							0	0	0	0	0	0	0	0
17030300	BICYCLE REPAIRER							6	0	0	0	10	6	10	0
17030300	ALL OTHER MECHANICS + R	1830						4	100	24	90	42	300	96	
17030300	MECHANIC MAINTENANCE	2850							250	36	300	66	540	102	
*****	TOTALS USOE 17030300 *****														
		4670	127						70	60	420	120	900	198	
**** 08	17039900 AUTOMOTIVE SERVICES, OTHER														
17039900	TRAILER-RENTAL ATTENDAN	10	0							0	0	0	0	0	0
17039900	MARINE SVC. STAT. ATTN	10	6							0	0	0	0	0	0
17039900	TIRE CHANGER	390	102	80						0	60	18	100	18	
17039900	TIRE FABRICATOR +/-OR RE	410	108	50					20	0	30	12	70	18	
17039900	LUBE SERVICER/FUEL PUMP	3170	780	730					180	36	490	138	910	192	
*****	TOTALS USOE 17039900 *****														
		3940	996	860	204			0	216	220	36	540	168	1340	220
**** 08	17040100 AIRCRAFT MAINTENANCE														
17040100	MECHANIC AIRCRAFT	350	114	100	24			0	50	36	0	0	10	12	40
*****	TOTALS USOE 17040100 *****														
		350	114	100	24	20	6	50	36	0	0	10	12	40	0
**** 08	17060000 BUSINESS MACHINE MAINTENANCE														
17060000	SEWING MACHINE MECHANIC	40	6	10	0	0	0	0	0	0	0	0	0	0	0
17060000	COIN MACHINE SERVICER	120	42	30	12	20	12	40	18	10	0	40	12	20	0

Opps SAMPLE
 "Occupational Demand"

KEY: LINE 1: A,A,A,A
 LINE 2: 2,3,4,5,7,8,9
 LINE 3: UNIV,PRIV,APPR,CORR,ESAR,CCOL,DVR
 LINE 4: 1

CLUSTER
 CODE PR SC WYG
 USOE
 CODE
 BLS-CODE
 NUMBER
 OES JOB TITLE

**** DEMAND STATE ****
 **** SUPPLY ****
 TRAINING INSTITUTIONS
 PAST CURR FUT. 6-YR DEM. CCOL UNIV APPR PRIV DVR CETA HS

***** TOTALS USOE 17010200 *****

**** 00 17030200 MECHANIC

00 00 000 17030200 50000700 CAR REPAIRER

00 00 000 17030200 50000253 AUTOMOBILE REPAIR

00 00 000 17030200 50000251 MECHANIC AUTOM

***** TOTALS USOE 17030200 *****

**** 00 17030300 SPECIALIZED M.

00 00 000 17030300 50170110 LAUNDR

00 00 000 17030300 50000151 AUTO SE

00 00 000 17030300 50170120 LOCKSMITH

00 00 000 17030300 50170020 BICYCLE RE

00 00 000 17030300 50000000 ALL OTHER ME

00 00 000 17030300 50150060 MECHANIC MAIN

***** TOTALS USOE 17030300 *****

**** 00 17039900 AUTOMOTIVE SERVICES, OTHER

00 00 000 17039900 64120040 TRAILER-RENTAL ATTEND.

00 00 000 17039900 64120090 MARINE SVC. STAT. ATTEN

00 00 000 17039900 64120060 TIRE CHANGER

00 00 000 17039900 64390140 TIRE FABRICATOR +/-OR RE

00 00 000 17039900 64120080 LURE SERVICER/FUEL PUMP

***** TOTALS USOE 17039900 *****

**** 00 17040100 AIRCRAFT MAINTENANCE

00 00 000 17040100 50000101 MECHANIC AIRCRAFT

***** TOTALS USOE 17040100 *****

**** 00 17060000 BUSINESS MACHINE MAINTENANCE

00 00 000 17060000 50170270 SEWING MACHINE MECHANIC

00 00 000 17060000 50170150 COIN MACHINE SERVICER

40 540 160 0 0 0 0 0 2 0

 190 42
 70 100
 3102
 252 149 0 25 0 3 7 200
 3 6 0 1 0 201
 8770 1600 0 0 0 0 0 0

 500 5 670 174
 500 590 670 174 44 0 1 0 0 3 9

 70 80 90 24
 330 370 400 114

“Occupational Demand”
 “Occupational Supply”
 OPSS SAMPLE

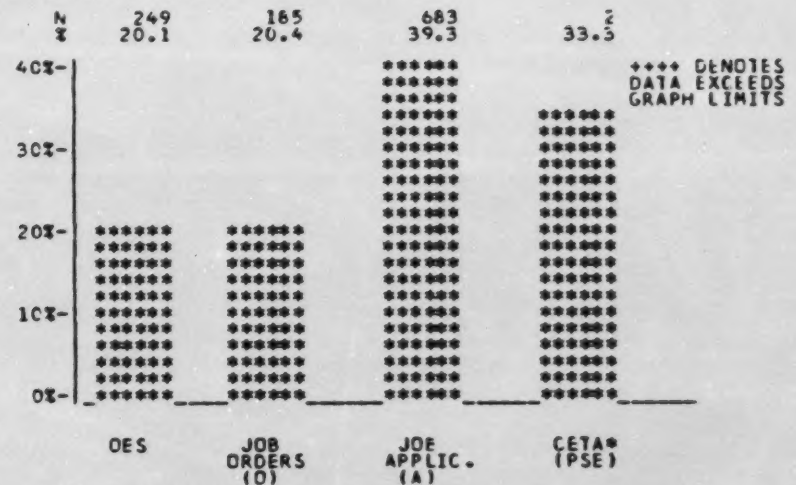
MECHANIC USOE SUBGROUP
IN CITY OF PORTLAND, FY 1978

CETA AREA:
CITY OF PORTLAND

DRUGON CLUSTER * 008 MECHANICS

USOE SUBGROUP DESCRIPTION:
LEARNING EXPERIENCES CONCERNED WITH THE COMPONENTS
OF THE VEHICLE, INCLUDING ENGINE, POWER TRANSMISSION,
STEERING, BRAKES, AND ELECTRICAL SYSTEMS.
INCLUDED IS TRAINING IN THE USE OF DIAGNOSTIC
AND TESTING EQUIPMENT AND TOOLS USED IN THE
REPAIR PROCESS.

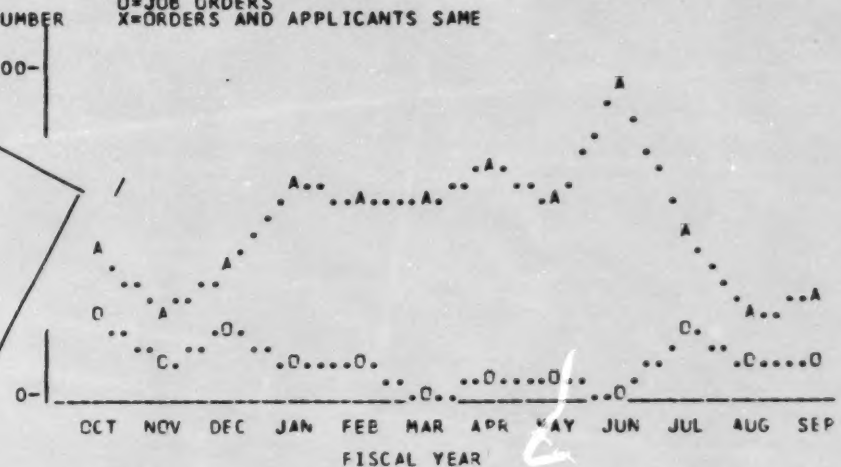
CES JOB TITLES:
MECHANIC AUTOMOTIVE
CAR REPAIRER
AUTOMOBILE REPAIR SERVICE
MECHANIC HELP AUTO



OPPS SAMPLE
"Occupational Supply/
Demand Relationships"

* CETA (PSE) DATA ARE GEN.
FROM SAMPLES AND NOT EXP.
TO POPULATION VALUES.

NUMBER
100-
A=JOB APPLICANTS
O=JOB ORDERS
X=ORDERS AND APPLICANTS SAME



WTG: NURSING, X-RAY AND RELATED SERVICES



WORK PERFORMED

Workers in these jobs care for and help treat people who are ill, injured, or physically handicapped.

YOUR JOB MIGHT BE TO (Examples):

- Give nursing care to sick
- Use X-ray and other medical equipment.
- Give physical therapy
- Work in hospital agencies.

YOUR DUTIES MIGHT

- Data - 3 - Observe condition
- People - 6 - Exchange info. medical staff
- OR
- 7 - Do small non-medical comfort and convenience (Aid).
- Things - 8 - Use the equipment and work to the area of specialization. the important part of the

WORKER REQUIREMENTS

APTITUDES - With training, you should have the ability to do such things as (Examples):

- G,V - Recognize and interpret patient's symptoms and reactions and communicate effectively with physicians, patients, and other nursing staff (General Learning Ability, Verbal).
- S,P - Visualize normal body functions and structure and distinguish differences in patient (Spatial, Form Perception).
- Q - Be accurate in reading instruments and keeping medical records (Clerical).
- K,F,M - Rapidly assist in emergency care, skillfully supply and handle instruments required, apply medical dressing (Motor Coordination, Finger Dexterity, Manual Dexterity).

WORK ENVIRONMENT

INTERESTS - You should prefer situations where you:

- Work with people for their well-being (4).
- Do work of a technical, therapeutic nature (7).

TEMPERAMENTS - You should be able to adjust to situations where you:

- Work cooperatively with patients and other medical staff (5).
- Do precise, thorough work (Y).

PS - You should be able to meet the demands of the job. Most of the jobs are light work (Examples):

Radiograph Technician sits most of the time, stands, walks, and may lift up to 50 pounds (M). Hearing-Talking (5), and Reading.

find the working conditions. All jobs in this

are inside most of the

may be exposed to Wet and Cold (4), risk of bodily injury (6).

SEARCH SAMPLE
"Job Titles Duties and Responsibilities"
"Work Settings"

EDUCATIONAL DEVELOPMENT - You may need to meet the Reasoning (4,5,3), Math (3,2), and Language (4,3,2) requirements (Examples):

- Apply nursing principles and techniques to the care of patients (Reasoning 4).
- Use simple math to accurately read charts and prescriptions (Math 3).
- Read medical articles and communicate easily with patients (Language 4).

SPECIFIC VOCATIONAL PREPARATION - The time it takes to learn these occupations ranges from 6 months to 4 years (Examples):

- An Occupational Therapy Aid may take up to 1 year to learn the job (5).
- A Dental Assistant may take up to 2 years (6).
- A Private Duty Nurse may take up to 4 years (7).

METHOD OF ENTRY - Three types of training program are offered: traditional diploma programs, programs leading to a bachelor's degree, and associate degree programs lasting about 2 years. All training includes supervised nursing practice. You can start this preparation by (Examples):

- Taking courses in chemistry, physics, health, and first aid.
- Joining youth groups as 4-H and Scouts.
- Doing volunteer work for the needy.
- Medical experience in the Armed Services.

NURSE, REGISTERED PROFESSIONAL

Nurses provide care, either directly or indirectly, that requires professional judgment. They are responsible for determining that the total nursing care of patients is safe and effective, and they work closely with members of allied health professions in maintaining health, preventing illness, and caring for the sick and injured. Registered nurses supervise the care given by each member of the nursing team and provide assistance, instruction and direction when required.

REQUIREMENTS

1. Be of good moral character.
2. Have good physical and mental health.
3. Graduation from an approved school.
4. Pass the state board examination.

FEES

1. Examination or endorsement
2. Original license
3. Biennial renewal

CERTIFICATE

Renewed biennially to persons certified to those of Oregon, 60 days in a biennium.

INFORMATION

Additional information may be obtained from the Oregon State Board of Nursing, 1400 S.W. Fifth Avenue, Portland, Oregon 97201. Telephone: 229-5653.

Contacting the Oregon State Board of Nursing, 1400 S.W. Fifth Avenue, Portland, Oregon 97201. Telephone: 229-5653.

DOT CLASS:	075.374-010	Nurse, General Duty
WG CLASS:	10.02	Nursing, Therapy and Specialized Teaching Services
SOC CLASS:	290	Registered Nurses
WTG CLASS:	92	Nursing, X-ray and Related Services

NAME: L. J. HUSTON, CAROL
CITY: HUNTERVILLE

COPYRIGHT OREGON EMPLOYMENT DIVISION 1973, 1974
FOR LIMITED DISTRIB

07/18/80

AREA: (WORK TRAIT GROUPS)

LM L U OL
TO I N TI
KS K D SK
ET E -E

QUALIFYING
DAP(S)

		MOSTLY LIKES				
ART						
DECORATING AND ART WORK	2	2	0	0	H	07
ART WORK	4	3	0	1	H	
ARTISTIC RESTORATION, DECORATION AND RELATED WORK	5 (1)	1	1	0		
BUSINESS RELATIONS						
ADMINISTRATIVE	6	1				
INTERVIEWING, INFO-GIVING, AND RELATED WORK (EDUCATIONAL)	12	1				
TITLE AND CONTRACT SEARCH AND ANALYSIS AND RELATED	14	1	1			
CORRESPONDING AND RELATED WORK	15	2	0			
CLERICAL WORK						
SCHEDULING, DISPATCHING, EXPEDITING, AND RELATED WORK	17	2	0			
COUNSELING, GUIDANCE, AND SOCIAL WORK						
GUIDANCE AND COUNSELING	32	2	0	0		
		MOSTLY UNDECIDED				
ART						
ART INSTRUCTIVE WORK	1	0	2	0	SE	
PHOTOGRAPHY AND MOTION PICTURE CAMERA WORK	3	0	1	1	H	
BUSINESS RELATIONS						
BUSINESS TRAINING	9	0	1	0	H	
MANAGERIAL WORK	12	0	1	1	H	
CLERICAL WORK						
SECRETARIAL AND RELATED WORK	18	0	1	1	H	06
FACILITIES, SERVICES - MOVEMENT ALLOCATING-EXPEDITING	19	0	2	0	H	22
INSPECTING AND STOCK CHECKING	22	0	1	1	H	23
TYPESETTING, REPRODUCING, AND RELATED MACHINE WORK	23	0	1	1	H	20, 21
CLASSIFYING, FILING AND RELATED WORK	24	0	1	1	H	13, 1
PERSONAL SERVICE						
USHERING, MESSENGER SERVICE AND RELATED	106	0	1	1	SEE SEARCH	
ANIMAL CARE	107	0	1	0	H	21
PHOTOGRAPHY AND COMMUNICATIONS						
MOTION PICTURE PROJECTOR AND PHOTO MACHINE WORK	108	0	2	0	H	07
TRANSPORTATION						
TRANSPORTATION SERVICE WORK	110	0	2	0	H	38
		MOSTLY DISLIKES				
BUSINESS RELATIONS						
CONTRACT NEGOTIATION AND RELATED WORK	7	0	0	2	L	02
SUPERVISORY WORK (CLERICAL, SALES, AND RELATED ACTIVITIES)	9	0	0	2	H	00 L -04
CONSULTATIVE AND BUSINESS SERVICES	11	0	0	2	H	29 L -04
ACCOUNTING, AUDITING, AND RELATED WORK	13	0	0	2	L	04
INFO GATHERING, DISPENSING, VERIFYING AND RELATED WORK	16	0	2	3	H	10, 17, 22, 29, 39, 58 H -14
CLERICAL WORK						
PAYING AND RECEIVING THANKS AND OTHER ESTABLISHMENTS	20	0	0	2	H	39 H -33
CASHIERING (FOR JO STORE, THEATRE, RESTAURANT-RELATED ESTABL.)	21	0	0	2	H	40 H -14

"Aptitudes and Interests"

SEARCH SAMPLE

MECHANIC, INDUSTRIAL TRUCK

NATURE OF WORK

Industrial truck mechanics have the important job of keeping motorized equipment in good running condition. They repair and maintain electric, diesel and gasoline semi trucks and buses, following manuals and using handtools, power tools, and knowledge of electrical, power transmission, brake and other automotive systems: Read job orders and observe and listen to truck in operation to determine malfunction and to plan work procedures. Install new ignition systems, aligns front wheels, changes or recharges batteries and replaces transmissions and other parts, using handtools. Overhaul gas or diesel engines, using mechanic's handtools, welding equipment, standard charts and hoists. Examines protective guards, loose bolts and specified safety devices on trucks and makes adjustments using handtools. Lubricate moving parts and adjust truck to verify conformance to specifications. (special lifting or towing attachments or other devices according to drawings.)

WORKING CONDITIONS

Most work is indoors outdoors where bright, lighted, heated and dirty parts. They often cramped positions for

TOOLS USED

Screwdrivers
Hammers
Pliers
Wrenches
Power and Machine Tools
Transmission Jacks
Pump Seal Installers
Welding Equipment

DESIRABLE QUALIFICATIONS

Other factors evaluated by the committee include cooperativeness, judgment, personal appearance, interest, financial responsibility and stability. Course work in automotive and diesel shop is highly desirable.

ENTRANCE REQUIREMENTS

These minimum requirements are generally uniform throughout the State of Oregon:

1. Have a high school diploma or the equivalent and provide a transcript of high school grades or GED test scores.
2. Be at least 18 years of age.
3. Be physically able to perform the duties of the trade.
4. Complete the Specific Aptitude Test Battery (S-423).

HELPFUL SCHOOL SUBJECTS

Automotive Shop
English
Physics
Mathematics
General Science
Machine Shop

TERM OF APPRENTICESHIP

Length of Training: 8,000 hours (4 years)

Training: 144 hours per year

TESTS

Welding
Transmission

Ignition
Stems
Carburetors

TRAINING/SKILL/EXPERIENCE
REQUIREMENTS
"Guide to Apprenticeships"

Terms
Public Relations

Automobile Mechanics

(D.O.T. 620-261-010; 281-G10, -026, -034, -038, -062 and -066; 381-010 and -022; 684-018; and 865-684-010)

Nature of the Work

Anyone whose car has broken down knows how important the automobile mechanic's job is. The ability to make a quick and accurate diagnosis, one of the mechanic's most valuable skills, requires good reasoning ability and a thorough knowledge of automobiles. In fact, many mechanics consider diagnosing "hard to find" troubles one of their most challenging and satisfying duties.

When mechanical or electrical troubles occur, mechanics first get a description of the symptoms from the owner or, if they work in a dealership, the service advisor who wrote the repair order. The mechanic may have to test drive the car or use testing equipment, such as motor analyzers, spark plug tester or compression gauges, to locate the problem. Once the cause of the problem is found, mechanics make adjustments. If a part cannot be fixed, they

Most automobile variety of repairs: replace, automobile on gear, and. Because repair training, mechanics. Tune-up, timing and spark plugs, parts to ensure e. They often use sc. locate malfunctions items.

Automobile air-conditioners and stall air-conditioners and such as compressors and co. end mechanics align and balai. and repair steering mechanisms and suspension systems. They frequently use special alignment equipment and wheel-balancing machines. Brake mechanics adjust brakes, replace brake linings, repair hydraulic cylinders, and make other repairs on brake systems. Some mechanics specialize in both brake and front-end work.

Automobile-radiator mechanics clean radiators with caustic solutions, locate and solder leaks, and install new radiator cores. They also may repair heaters and air-conditioners, and solder leaks in gasoline tanks. Automobile-glass mechanics replace broken windshield and window glass and repair window operating mechanisms. They install preformed glass to replace curved windows, and

they use window patterns and glass-cutting tools to cut replacement glass from flat sheets. In some cases they may repair minor damage, such as pits, rather than replace the window.

To prevent breakdowns, most car owners have their cars checked regularly and parts adjusted, repaired, or replaced before they go bad. This responsibility of the mechanic is vital to safe and trouble-free driving. When doing preventive maintenance, mechanics may follow a checklist to be sure they examine all important parts. The list may include distributor points, spark plugs, carburetor, wheel balance, and other potentially troublesome items.

Working Conditions

ally, mechanics work indoors. Mobile repair shops are well vented, and heated, but older shops have these advantages. Mechanics work with dirty and greasy parts, in cramped positions. Many of the auto tools that they must lift are heavy, and bruises are common, but can be avoided by keeping orderly and observing

CAREER LADDERS/LINKAGES
"Occupational Outlook Handbook"

worked as assistant worked automobile repair shops, and departments, and department of automobile service are employed by Federal, State, local governments, taxicab and auto leasing companies, and other organizations that repair their own automobiles. Some mechanics employed by automobile manufacturers make final adjustments and repairs at the end of the assembly line.

Most automobile mechanics work in shops that employ from one to five mechanics, but some of the largest shops employ more than 100. Generally, automobile dealer shops employ more mechanics than independent shops.

Automobile mechanics work in every section of the country. Geographically, employment is distributed about the same as population.

Related Occupations

Automobile mechanics repair and service automobiles. Other related occupations that also repair and service motor vehicles include automobile body repairers, customizers, painters, and service advisors as well as truck and bus mechanics.

<u>County and City</u>	<u>July 1, 1978 Revised Certified Population</u>	<u>July 1, 1979 Certified Population</u>
MARION COUNTY (continued)		
Donald	280	280
Gates	280	280
Gervais	820	830
Hubbard	1,550	1,630
*Idanha	350	360
Jefferson	1,530	1,570
Mt. Angel	2,525	2,675
St. Paul	340	340
*Salem	84,600	89,000
Scotts Mills		220
Silverton		5,475
Stayton		4,225
Sublimity		1,160
Turner		1,130
Woodburn		10,325
MORROW COUNTY		7,400
Boardman		1,290
Heppner		1,740
Ione		1,370
Irrigoi.		490
Lexingto		290
MULTNOMAH COU.		558,600
Fairview		1,820
Gresham		31,700
Maywood Park		900
*Portland		370,000
Troutdale	5,450	4,575
Wood Village	2,230	2,340
POLK COUNTY	44,600	46,000
Dallas	8,200	8,350
Falls City	790	800
Independence	4,000	4,150
Monmouth	5,800	5,975
SHERMAN COUNTY	2,200	2,200
Grass Valley	130	130
Moro	340	340
Rufus	300	340
Wasco	380	410
TILLAMOOK COUNTY	20,000	21,000
Bay City	1,070	1,120
Garibaldi	1,130	1,150
Manzanita	420	425
Nehalem	260	265

SAMPLE POPULATION
INFORMATION
"Population Estimates" from Center
for Population Research
Portland State Univ.

1979 IN REVIEW

Announced Manufacturing Investment^{1/}

During 1979, announced manufacturing investment was 403.9 million dollars. This is 63.9 million dollars, or 13.7 percent, less than 1978 announced investment.

The number of investment dollars needed to generate one job has increased dramatically since 1976.

<u>Year</u>	<u>Investment Dollars Per Year</u>
1976	\$38,060
1977	52,830
1978	63,550
1979	79,290

This incre-
of land and

Labor F

F
an.

E.
the la
employe
it increa.

The unem
to 6.8 percent
unemployment ra.

asing costs

increased only 1.8
increased at an

up with the increase in
en 1978 and 1979,
percent. From 1975 to 1978,
of 6.6 percent.

increased from 6.0 percent in 1978
this is still much below the 1975
.6 percent.

SAMPLE ECONOMIC INFORMATION
"The Performance of the Oregon
Economy ..." from Dept.
of Economic Development

1. Public announcements by manufacturers of their intention--either to locate or expand operations--supply the basic data for this summary. Some firms, due to marketing or other considerations, do not publicize their expansion plans. Consequently, the above data is not complete. However, it provides an indicator of "announced" investments.